

**REMARKS**

The indication of allowable subject matter in claims 14-16, 18, 19 and 20-38 is acknowledged and appreciated. In order to expedite prosecution, claims 12-13 have been canceled without prejudice/disclaimer to the subject matter embodied thereby, and claims 14-16 have been rewritten into independent form. In view of the following remarks, it is respectfully submitted that all claims are in condition for allowance.

Claims 16 and 17 stand objected to for minor informalities. It is respectfully submitted that the enclosed amendment obviates the alleged informalities. Accordingly, it is respectfully requested that this objection be withdrawn.

Claims 12, 13 and 17 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Yen et al. (US Patent No. 5,663,091), and claim 39-41 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yen et al. (U.S. Patent No. 5,663,091) in view of Applications admitted prior art (AAPA). Claim 12 is independent. These rejections are moot in view of the cancellation of claims 12-13 and corresponding amendment to claims 17, 39 and 41.

New independent claim 42 is submitted to be patentable over the cited prior art for at least the following reasons. Claim 42 recites in pertinent part, “an obtuse angle is formed between a wall surface of the opening and a bottom surface of the opening at an edge of the bottom surface.” Support for this feature can be found, for example, on page 19, lines 4-5 of Applicants’ specification corresponding to, for example, Figure 2B of Applicants’ drawings. According to one aspect of the present invention, such an “obtuse angle” formed in the particular

**combination** set forth in claim 42, can provide the capability to improve the semiconductor device. For example, it can be made possible for coverage of the lower electrode and the capacitor insulating film, e.g., both formed on the corner, not to deteriorate. Further, it can be made possible that a problem in which the lower electrode, the capacitor insulating film, or the upper electrode formed on the capacitor insulating film is easily broken down, can be prevented.

In contrast, the alleged opening of Yen is a conventional step-like wall surface which gets wider as it goes upward (*see* Figs. 2F-2H), so that a **right-angle** (as opposed to an obtuse angle) is formed between a wall surface of the alleged opening and bottom surface of the opening at an edge of the bottom surface. Accordingly, Yen is subject to the drawbacks identified by Applicants, in which coverage of a capacitor insulating film formed on the corner deteriorates while the capacitor insulating film or the upper electrode formed on the capacitor insulating film is easily broken down. Indeed, Yen is completely silent as to coverage at the corner and the corresponding drawbacks that can arise from having a right-angle thereat, let alone suggest a means by which to obviate said drawbacks. Only Applicants have recognized and considered said drawbacks, and conceived of a structural means (e.g., obtuse angle in combination with the other features recited in claim 42) to enable obviating such drawbacks. Accordingly, the cited prior art does not disclose, suggest, nor provide any motivation, for arriving at the claimed **combination** set forth in claim 42.

As anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed, either expressly or inherently (noting that "inherency may not be established by probabilities or possibilities", *Scaltech Inc. v. Retec/Tetra*, 178 F.3d 1378 (Fed. Cir. 1999)), in a single prior art reference, *Akzo N.V. v. U.S. Int'l Trade Commission*, 808 F.2d 1471 (Fed. Cir. 1986), based on the forgoing, it is submitted that the cited prior art does not anticipate claim 42.

**Application No.: 10/786,070**

The Examiner is directed to MPEP § 2143.03 under the section entitled "All Claim Limitations Must Be Taught or Suggested", which sets forth the applicable standard for establishing obviousness under § 103:

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (citing *In re Royka*, 180 USPQ 580 (CCPA 1974)).


In the instant case, the cited prior art does not "establish *prima facie* obviousness of [the] claimed invention" as recited in claim 42 because the cited prior art fails both the "all the claim limitations" standard required under § 103<sup>1</sup> as well as the motivational requirement.

Based on the foregoing, it is respectfully submitted that all pending claims are patentable over the cited prior art. Accordingly, it is respectfully requested that the rejections under 35 U.S.C. § 102/103 be withdrawn.

#### **CONCLUSION**

Having fully and completely responded to the Office Action, Applicants submit that all of the claims are now in condition for allowance, an indication of which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below. To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,  
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